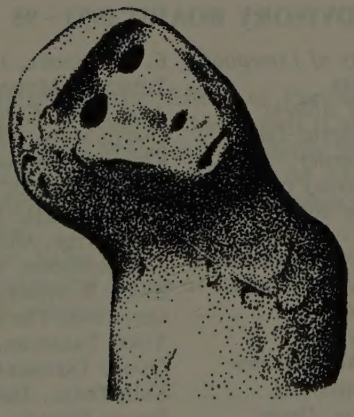
ISSN 0032-8332

PRIMATES

A JOURNAL OF PRIMATOLOGY

Vol. 35 1994



PUBLISHED QUARTERLY BY

JAPAN MONKEY CENTRE

HMLTN
QL
700
.P722

HMLTN
QL 700 .P722
Primates.
v 35 INDEX 12/31/1994
Received: 12-30-94
UNIVERSITY OF HAWAII
AT MANOA -- LIBRARY

PRIMATES A JOURNAL OF PRIMATOLOGY

FOUNDED 1957

PRIMATES is an international journal of primatology, whose general object is to provide facilities for the elucidation of the entire aspect of primates in connection with man. It publishes original papers that contribute to the development of the scientific study of primates and its scope embraces work in all fields of investigation, such as morphology, physiology, psychology, behavior, ecology, sociology, systematics, evolution, laboratory primate medicine, etc. In addition to original papers, brief notes, research reports, and review articles are included.

PRIMATES is published quarterly, and four numbers form one volume.

Persons who wish to contribute are advised to study the *Information for Contributors* printed inside the back cover and to follow the requested procedure carefully.

EDITORIAL BOARD 1993–95

Chief Editor: MASAO KAWAI, *Nihon Fukushi University*

Editors:

TOSHIO ASANO, *Aichi University*
AKIYOSHI EHARA, *Sugiyama Jogakuen Univ.*
NAOSUKE ITOIGAWA, *Osaka University*
MITSUO IWAMOTO, *Japan Monkey Centre*
TOSHITAKA IWAMOTO, *Miyazaki University*
KOSEI IZAWA, *Miyagi Univ. of Education*
TAKAYOSHI KANO, *Kyoto University*
TETSURO MATSUZAWA, *Kyoto University*
HIDEO NIGI, *Nippon Vet. & Anim. Sci. Univ.*
TOSHISADA NISHIDA, *Kyoto University*
KEN NOZAWA, *Chukyo University*
HIDEYUKI OHSAWA, *Kyoto University*
YUKIMARU SUGIYAMA, *Kyoto University*

ADVISORY BOARD 1993–95

R. I. M. DUNBAR, *The University of Liverpool*
TOMOO ENOMOTO, *Tokai University*
LINDA M. FEDIGAN, *University of Alberta*
A. H. HARCOURT, *Univ. of California, Davis*
MARIKO HASEGAWA, *Senshu University*
TOSHIKAZU HASEGAWA, *The University of Tokyo*
MOMOKI HIRAI, *The University of Tokyo*
SHIGEO HONJO, *Aichi University*
GOICHI ISHIMOTO, *Mie Univ. Sch. of Medicine*
KENJI KAWANAKA, *Okayama Univ. of Science*
TASUKU KIMURA, *Kyoto University*
NAOKI KOYAMA, *Kyoto University*
H. KUDO-HIROTANI, *Kanagawa Pref. Museum*
TAMAKI MARUHASHI, *Musashi University*
W. A. MASON, *Univ. of California, Davis*
KIYOAKI MATSUBAYASHI, *Kyoto University*
W. C. MCGREW, *Miami University*
E. W. MENZEL, JR., *State Univ. of New York*
TETSUHIRO MINAMI, *Osaka University*
AKIO MORI, *Kyoto University*
UMEYO MORI, *Nagoya Bunri College*
KOICHI NEGAYAMA, *Mukogawa Women's Univ.*
MASUMI NOZAKI, *Kyoto University*
JOHN F. OATES, *The City Univ. of New York*
J.-J. PETTER, *Mus. Nat. Hist. Naturelle*
J. G. ROBINSON, *Wildlife Conserv. International*
KAREN B. STRIER, *Univ. of Wisconsin, Madison*
GEN SUWA, *The University of Tokyo*
YUKIO TAKAHATA, *Naruto Univ. of Education*
OSAMU TAKENAKA, *Kyoto University*
KEIJI TERAO, *Tsukuba Pri. Ctr. Med. Sci.*
SHIGEO UEHARA, *Sapporo University*
RICHARD WRANGHAM, *Harvard University*
JUICHI YAMAGIWA, *Kyoto University*

Contributions, materials for announcement, and new books for review should be sent to:
Dr. MASAO KAWAI, Chief Editor, PRIMATES
Japan Monkey Centre, Inuyama, Aichi, 484 Japan

The annual subscription price including postage: Inland, ¥22,700 (including Consumption Tax) for institutions, ¥15,500 (including Consumption Tax) for individuals; abroad, ¥22,000 for institutions, ¥15,000 for individuals. As to the prices of back issues, please send inquiries to the Editorial Office. Subscription orders, remittances, and business correspondence should be addressed to:

PRIMATES, Editorial Office
Japan Monkey Centre, Inuyama, Aichi, 484 Japan

Published by JAPAN MONKEY CENTRE, Inuyama, Aichi, Japan, 1994 ©
Director: MITSUO IWAMOTO
Printed by KUZO DOGURA, Kyoto

CONTENTS

Vol. 35 No. 1, January 1994

YAMAGIWA, JUICHI, NDUNDA MWANZA, TAKAKAZU YUMOTO, and TAMAKI MARUHASHI: Seasonal Change in the Composition of the Diet of Eastern Lowland Gorillas 1

WATANUKI, Y., Y. NAKAYAMA, S. AZUMA, and S. ASHIZAWA: Foraging on Buds and Bark of Mulberry Trees by Japanese Monkeys and Their Range Utilization 15

CHIARELLO, ADRIANO GARCIA: Diet of the Brown Howler Monkey *Alouatta fusca* in a Semi-deciduous Forest Fragment of Southeastern Brazil 25

WATTS, DAVID P.: The Influence of Male Mating Tactics on Habitat Use in Mountain Gorillas (*Gorilla gorilla beringei*) 35

UEHARA, SHIGEO, MARIKO HIRAIWA-HASEGAWA, KAZUHIKO HOSAKA, and MIYA HAMAI: The Fate of Defeated Alpha Male Chimpanzees in Relation to Their Social Networks 49

ZHAO, QI-KUN: Mating Competition and Intergroup Transfer of Males in Tibetan Macaques (*Macaca thibetana*) at Mt. Emei, China 57

DIAMOND, A. C. and W. C. MCGREW: True Handedness in the Cotton-top Tamarin (*Saguinus oedipus*)? 69

MITSUNAGA, FUSAKO, MASUMI NOZAKI, and KEIKO SHIMIZU: Suppressed Copulatory Behavior and Ovarian Function in Lactating Japanese Monkeys (*Macaca fuscata fuscata*) During the Mating Season 79

Short Communications

KOENIG, ANDREAS and HARTMUT ROTHE: Effects of Familiarity on the Behaviour Towards Intruders in Captive Common Marmosets (*Callithrix jacchus*) 89

REINHARDT, VIKTOR: Caged Rhesus Macaques Voluntarily Work for Ordinary Food 95

MORBECK, MARY ELLEN, ALISON GALLOWAY, KENNETH M. MOWBRAY, and ADRIENNE L. ZIHLMAN: Skeletal Asymmetry and Hand Preference During Termite Fishing by Gombe Chimpanzees 99

FUKUTA, KATSUHIRO, HIROSHI KUDO, N. H. FUJINA, S. SIVANANDAM, A. R. MUTLIB, and S. JALALUDIN: Biochemical Values of Blood Serum in the Female Silvered Leaf-monkey, *Presbytis cristatus* 105

Book Review 109

Date of Publication: January 31, 1994

Vol. 35 No. 2, April 1994

BRERETON, ALYN R.: Copulatory Behavior in a Free-ranging Population of Stumptail Macaques (*Macaca arctoides*) in Mexico 113

BRERETON, ALYN R.: Return-benefit Spite Hypothesis: An Explanation for Sexual Interference in Stumptail Macaques (*Macaca arctoides*) 123

TOMASELLO, MICHAEL, JOSEP CALL, KATHERINE NAGELL, RAQUEL OLGUIN, and MALINDA CARPENTER: The Learning and Use of Gestural Signals by Young Chimpanzees: A Trans-generational Study 137

11 384HI 3558
XL
8/95 31249-200

TOMONAGA, MASAKI: How Laboratory-raised Japanese Monkeys (*Macaca fuscata*) Perceive Rotated Photographs of Monkeys: Evidence for an Inversion Effect in Face Perception 155
NATORI, MASAHITO: Craniometrical Variations Among Eastern Brazilian Marmosets and Their Systematic Relationships 167
MASTERS, J. C., R. J. RAYNER, H. LUDEWICK, E. ZIMMERMANN, N. MOLEZ-VERRIERE, F. VINCENT, and L. T. NASH: Phylogenetic Relationships Among the Galaginae as Indicated by Erythrocytic Allozymes 177
CHAMPOUX, MARIBETH and STEPHEN J. SUOMI: Behavioral and Adrenocortical Responses of Rhesus Macaque Mothers to Infant Separation in an Unfamiliar Environment 191
WANGO, EMMANUEL O. and PAUL MBUI: Studies on Conversion of Labelled Pregnenolone to Progesterone by Olive Baboon Placental Cytotrophoblast Cells in vitro 203
OJOO, R. O., G. E. OTIANGA-OWITI, D. ODUOR-OKELO, and E. O. WANGO: Daytime Variations of Serum Testosterone and Luteinizing Hormone in Captive Thick-tailed Bush Babies (*Galago garnetti*) 211

SHORT COMMUNICATIONS

GEBO, DANIEL L., COLIN A. CHAPMAN, LAUREN J. CHAPMAN, and JOANNA LAMBERT: Locomotor Response to Predator Threat in Red Colobus Monkeys 219
CROVELLA, SERGIO and GIUSEPPE ARDITO: Frequencies of Oral Pathologies in a Sample of 767 Non-human Primates 225
MSUYA, CHARLES P. and TERRY HARRISON: The Circumorbital Foramina in Primates 231

RESEARCH REPORT

LONG, YONGCHENG, CRAIG R. KIRKPATRICK, ZHONGTAI, and XIAOLIN: Report on the Distribution, Population, and Ecology of the Yunnan Snub-nosed Monkey (*Rhinopithecus bieti*) 241

BOOK REVIEWS 251

Date of Publication: April 15, 1994

Vol. 35 No. 3, July 1994

HAMILTON, RUTH A. and BIRUTÉ M. F. GALDIKAS: A Preliminary Study of Food Selection by the Orangutan in Relation to Plant Quality 255
TOMBLIN, DAVID C. and JACK A. CRANFORD: Ecological Niche Differences Between *Alouatta palliata* and *Cebus capucinus* Comparing Feeding Modes, Branch Use, and Diet 265
UEHARA, SHIGEO, T. NISHIDA, H. TAKASAKI, RASHIDI KITOPENI, MOSHI BUNENGWA KASAGULA, K. NORIKOSHI, T. TSUKAHARA, RAMADHANI NYUNDO, and M. HAMAI: A Lone Male Chimpanzee in the Wild: The Survivor of a Disintegrated Unit-group 275
ANDERSON, CONNIE M. and CRAIG F. BIELERT: Adolescent Exaggeration in Female Catarrhine Primates 283

UENO, YOSHIKAZU: Olfactory Discrimination of Eight Food Flavors in the Capuchin Monkey (*Cebus apella*): Comparison Between Fruity and Fishy Odors 301
UENO, YOSHIKAZU: Olfactory Discrimination of Urine Odors from Five Species by Tufted Capuchin (*Cebus apella*) 311
DAL PRA, GERALDINE and THOMAS GEISSMANN: Behavioural Development of Twin Siamangs (*Hylobates syndactylus*) 325
WASHBURN, DAVID A., STELLA HARPER, and DUANE M. RUMBAUGH: Computer-task Testing of Rhesus Monkeys (*Macaca mulatta*) in the Social Milieu 343
SAMILCHUK, E. and S. SARSANIYA: Genetic Polymorphism of Alpha-1-antitrypsin in Macaque Species 353

SHORT COMMUNICATIONS

ROSS, CAROLINE and ARUN SRIVASTAVA: Factors Influencing the Population Density of the Hanuman Langur (*Presbytis entellus*) in Sariska Tiger Reserve 361
REICHARD, ULRICH and VOLKER SOMMER: Grooming Site Preferences in Wild White-handed Gibbons (*Hylobates lar*) 369
GUST, DEBORAH A.: A Brief Report on the Social Behavior of the Crested Mangabey (*Cercocebus galeritus galeritus*) with a Comparison to the Sooty Mangabey (*C. torquatus atys*) 375
CHALMEAU, RAPHAEL: Do Chimpanzees Cooperate in a Learning Task? 385

Date of Publication: July 15, 1994

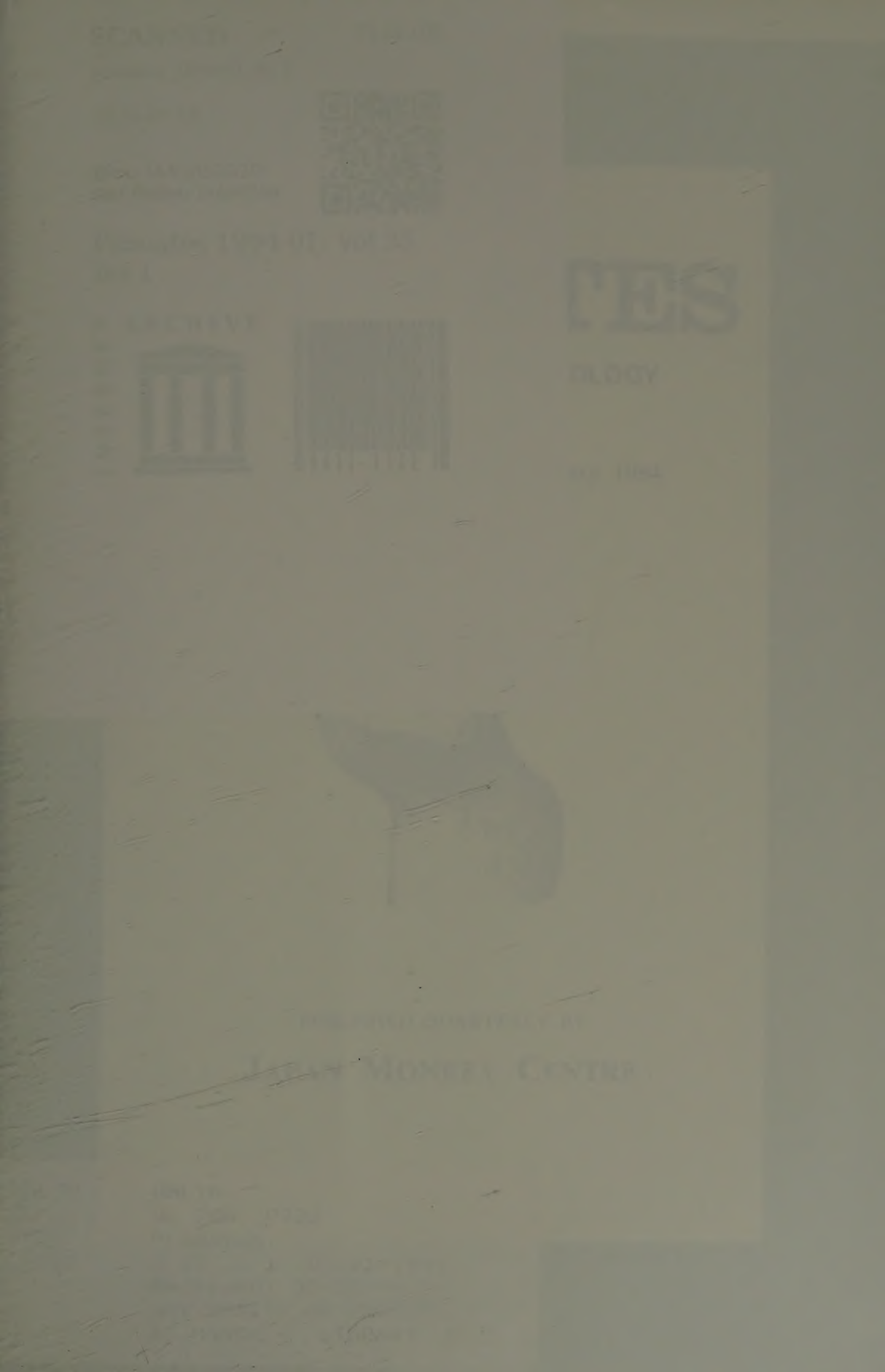
Vol. 35 No. 4, October 1994

RASMUSSEN, D. R. and M. FARRINGTON: Relationships Between Position in the Central-peripheral Structure, Age, and the Dominance Index in the Tanaxpillo Colony of Stumptail Macaques (*Macaca arctoides*) 393
PERRY, SUSAN and LISA ROSE: Begging and Transfer of Coati Meat by White-faced Capuchin Monkeys, *Cebus capucinus* 409
MANSON, JOSEPH H.: Mating Patterns, Mate Choice, and Birth Season Heterosexual Relationships in Free-ranging Rhesus Macaques 417
CLARKE, MARGARET R., EVAN L. ZUCKER, and KENNETH E. GLANDER: Group Takeover by a Natal Male Howling Monkey (*Alouatta palliata*) and Associated Disappearance and Injuries of Immatures 435
MAESTRIPIERI, DARIO: Costs and Benefits of Maternal Aggression in Lactating Female Rhesus Macaques 443
NAGATO, YASUKAZU, TOMOO ENOMOTO, and KIYOAKI MATSUBAYASHI: Observation on the Cycle of the Seminiferous Epithelium in the Japanese Macaque (*Macaca fuscata*) Using Semithin Sections 455
ENOMOTO, TOMOO, KIYOAKI MATSUBAYASHI, YASUKAZU NAGATO, and MAYUMI NAKANO: Seasonal Changes in the Spermatogenic Epithelium of Adult Japanese Macaques (*Macaca fuscata fuscata*) 465
JORDAN, ELAINE K., RUTH A. WOODWARD, YOSEPH SHIFERAW, JEANETTE BLACK, and JIRI SAFAR: Evaluation of Intra-blood Brain Barrier IgG Synthesis Rate and Blood Brain Barrier Function in Normal Rhesus Monkeys 473

SHORT COMMUNICATIONS

NEWTON, PAUL: Social Stability and Change Among Forest Hanuman Langurs (*Presbytis entellus*) 489
INAGAKI, HARUHISA and TAKEO YAMASHITA: An Investigation of Intergeneric Relations Among Papionini Monkeys Based on Fine Hair Medulla Structures..... 499
NAKAKUKI, SHOICHI and AKIYOSHI EHARA: The Bronchial Tree, Lobular Division, and Blood Vessels of the Lung of the Diana Monkey (*Cercopithecus diana*) 505
NAKAKUKI, SHOICHI: Distribution of the Pulmonary Artery and Vein in the Lung of the Crab-eating Monkey (*Macaca fascicularis*) 513
CROVELLA, S., D. MONTAGNON, B. RAKOTOSAMIMANANA, and Y. RUMPLER: Molecular Biology and Systematics of an Extinct Lemur: *Pachylemur insignis* 519

BOOK REVIEW 523

INFORMATION 526

Date of Publication: October 31, 1994